

# Claims

- [c1] An apparatus comprising:
- a current-carrying element with a first region carrying a first current;
  - a second region adjacent to said first region;
  - said second region carrying a second current;
  - said second current differing from said first current where adjacent; and
  - a magnetic resonance imaging machine.
- [c2] Said apparatus of claim [c1] wherein:
- said second region separated from said first region by a planar interface; and
  - said first and second regions being mirror images in said planar interface.
- [c3] Said apparatus of claim [c1] wherein:
- said first current has a first direction;
  - said second current has a second direction; and
  - said second direction is opposite said first direction.
- [c4] Said apparatus of claim [c2] wherein opposite of said second current being a mirror image of said first current in said planar interface.

- [c5] Said apparatus of claim [c4] wherein:
- said first region carries a first volume current density;
  - said first region has a first thickness;
  - said first region carries a first current density, comprising said first volume current density integrated over said first thickness of said first region; and
  - said first current density is constant over said first region.
- [c6] Said apparatus of claim [c1] comprising a support surface.
- [c7] Said apparatus of claim [c6] wherein said first and second regions pass under and conform to said support surface.
- [c8] Said apparatus of claim [c7] wherein said support surface is flat.
- [c9] Said apparatus of claim [c8] wherein said current-carrying element has cross-section comprising an arc of a circle.